

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

New claims 38-42 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-42 are now pending in this application.

Information Disclosure Statement

The Office Action summary indicates that the Information Disclosure Statement and SB/08 form filed on March 31, 2004 have been considered. However, a signed and initialed copy of the SB/08 form was not received with the Office Action. Applicants respectfully request a signed and initialed copy of the SB/08 form with the next Office correspondence.

Rejection under 35 U.S.C. § 102

Claims 1-5, 8, 9, 17, 18, 20-23, 25, 26, 32-34, 36, and 37 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,961,658 (hereafter "Ohler"). This rejection is respectfully traversed.

Claim 1 recites a method of automatically providing traffic information to a user, comprising the steps of tracking and storing travel pattern data of the user, the travel pattern data including a time at which a travel occurs, analyzing the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs, wherein the travel pattern data is analyzed to determine whether the travel path is traveled at a frequency greater than a threshold value; and automatically determining traffic information along the particular travel path at or before the particular time at which travel is predicted.

Claim 20 recites a system for automatically providing traffic information to a user that comprises a position determining system for tracking travel pattern data of the user, the travel pattern data including a time at which a travel occurs; a storage unit for storing the tracked travel pattern data; a processing unit that analyzes the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs, wherein the processing unit is configured to analyze the travel pattern data to determine whether the travel path is traveled at a frequency greater than a threshold value; and a short range communication unit that automatically determines traffic information along the particular travel path at or before the particular time at which the travel is predicted.

Claim 36 recites a system for automatically providing traffic information to a user that comprises position determining means for tracking travel pattern data of the user, the travel pattern data including a time at which a travel occurs; storage means for storing the tracked travel pattern data; means for analyzing the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs, wherein the means for analyzing is configured to analyze the travel pattern data to determine whether the travel path is traveled at a frequency greater than a threshold value; and communication means that automatically determines traffic information along the particular travel path at or before the particular time at which the travel is predicted.

Claim 37 recites a computer readable medium having program code recorded thereon that, when executed, causes a processor to perform steps comprising tracking and storing travel pattern data of a user, the travel pattern data including a time at which a travel occurs; analyzing the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs, wherein the travel pattern data is analyzed to determine whether the travel path is traveled at a frequency greater than a threshold value; and automatically determining traffic information along the particular travel path at or before the particular time at which travel is predicted.

Ohler discloses a navigation system 10 that includes navigation application programs 38 and regular route application programs 39. See Ohler at col. 2, line 65, to col. 3, line 1. The regular route application programs 39 includes a learning mode program 50 that

identifies and records information regarding trips regularly taken and records trip information in a trip database 37. See Ohler at col. 4, lines 10-16. The learning mode program 50 can be activated manually or automatically. See Ohler at col. 4, lines 20-21. In automatic mode, the learning mode program 50 automatically learns regularly driven routes by determining an origin point of a trip, temporarily recording the trip departure time, determining the route and destination for the trip, and comparing the trip information to trip information stored in a database 37. See Ohler at col. 4, lines 54-58, 65-67; col. 5, lines 1, 9, 20-36. Ohler discloses that trip information is compared on the basis of origin point, destination point, time of departure, and route data. See Ohler at col. 5, lines 23-25. If an origin point correlates to multiple routinely traveled trips, a comparison can be made between the current time and recorded departure times that correspond to the origin point. See Ohler at col. 6, lines 46-56. Ohler discloses that range values can be established to set a range distance about an origin point stored in the database. See Ohler at col. 5, lines 25-32. If a just completed trip does not match a stored trip the just completed trip is recognized as a new trip and stored. See Ohler at col. 5, lines 33-35.

However, Ohler does not disclose a method of automatically providing traffic information to a user comprising the step of “analyzing the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs, wherein the travel pattern data is analyzed to determine whether the travel path is traveled at a frequency greater than a threshold value.” Nor does Ohler disclose a system or a computer readable medium having program code recorded thereon that performs such a step. Ohler discloses that frequency statistics are collected for routes to identify primary and secondary routes, wherein the most frequently traveled route is the primary route. See Ohler at col. 5, lines 42-50; col. 6, lines 14-25. However, Ohler does not disclose analyzing travel pattern data of a completed trip to predict a travel path by determining whether the travel path is traveled at a frequency greater than a threshold value. Ohler only discloses analyzing frequency data of stored trips to determine which stored trip is a primary route. Therefore, Ohler fails to disclose all of the features of claims 1, 20, 36, and 37.

For at least the reasons discussed above, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 6, 7, 19, 24, and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohler, as applied to claims 1 and 20, and further in view of U.S. Patent No. 6,393,301 (hereafter “Oda”). This rejection is respectfully traversed. Oda fails to remedy the deficiencies of Ohler discussed above in regard to claims 1 and 20, from which claims 6, 7, 19, 24, and 35 depend. Withdrawal of this rejection is respectfully requested.

Claims 10-16 and 27-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohler, as applied to claims 1 and 20, and further in view of U.S. Patent No. 6,720,920 (hereafter “Breed et al.”). This rejection is respectfully traversed. Breed et al. fails to remedy the deficiencies of Ohler discussed above in regard to claims 1 and 20, from which claims 10-16 and 27-31 depend. Withdrawal of this rejection is respectfully requested.

New Claims 38-42

New claim 38 recites a method of automatically providing traffic information to a user, comprising the steps of tracking and storing travel pattern data of the user, the travel pattern data including a time at which a travel occurs, analyzing the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs; and automatically determining traffic information along the particular travel path at or before the particular time at which travel is predicted; wherein the tracking and storing step comprises tracking and storing a start time, a day of the week, a start location, and an end location for each travel of the user; wherein the start time is determined at a time of switching on the ignition, and an end time is determined at a time of switching off the ignition.

Ohler does not disclose or suggest a step of tracking and storing travel pattern data, “wherein the tracking and storing step comprises tracking and storing a start time, a day of the week, a start location, and an end location for each travel of the user; wherein the start time is determined at a time of switching on the ignition, and an end time is determined at a time of switching off the ignition.”

Oda discloses a radio telephone system within a vehicle that includes an accessory mounted in the vehicle and a telephone, wherein the accessory includes a detector that detects an operation state of the vehicle and a transmitter that transmits a mode switch signal to the telephone when a change of the operation state of the vehicle is detected. See Oda at col. 1, lines 56-62; col. 2, lines 50-54. The detector may detect an on/off state of an ignition key of the vehicle. See Oda at col. 2, lines 1-2. However, Oda does not disclose or suggest a step of tracking and storing travel pattern data, “wherein the tracking and storing step comprises tracking and storing a start time, a day of the week, a start location, and an end location for each travel of the user; wherein the start time is determined at a time of switching on the ignition, and an end time is determined at a time of switching off the ignition.” Oda discloses a signal that is sent to a telephone when an ignition is placed in an on or off state, not that tracking and storing of travel pattern data starts when an ignition is switched on and that tracking and storing ends when the ignition is switched off.

Breed et al. also fails to disclose or suggest a step of tracking and storing travel pattern data, “wherein the tracking and storing step comprises tracking and storing a start time, a day of the week, a start location, and an end location for each travel of the user; wherein the start time is determined at a time of switching on the ignition, and an end time is determined at a time of switching off the ignition.” Therefore, Applicants submit that claim 38 is allowable over the prior art.

New claim 39 recites a system for automatically providing traffic information to a user, that comprises a position determining system for tracking travel pattern data of the user, the travel pattern data including a time at which a travel occurs; a storage unit for storing the tracked travel pattern data; a processing unit that analyzes the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs; and a short range communication unit that automatically determines traffic information along the particular travel path at or before the particular time at which the travel is predicted; wherein the short range communication unit is configured to communicate with a second vehicle along the travel path to receive travel information from the second vehicle; wherein the short range communication unit is configured to communicate with the second vehicle with short

range communication, wherein the short range communication is Dedicated Shortwave Radio Communications (DSRC). Claims 40 and 41 depend upon claim 39.

As noted in the Office Action at page 5, Ohler fails to disclose or suggest vehicle-to-vehicle communication. Oda fails to remedy this deficiency of Ohler. Breed et al. discloses a method and arrangement for communicating between vehicles. However, it would not have been obvious to modify the system of Ohler by the teachings of Breed et al. to provide the system of claim 39 because Breed et al. teaches against DSRC for vehicle-to-vehicle communication. Breed et al. teaches that DSRC would have a limited range that would not be sufficient for an RtZF system and that DSRC may interfere with other uses of DSRC. See Breed et al. at col. 25, lines 5-22, 45-56. Therefore, it would not have been obvious to one of ordinary skill to combine the teachings of Ohler and Breed et al. to provide the features of claims 39 because one of ordinary skill in the art would not have had a sufficient motivation to use DSRC for vehicle-to-vehicle communication in light of the disadvantages disclosed by Breed et al.

New claim 42 recites a system for automatically providing traffic information to a user that comprises a position determining system for tracking travel pattern data of the user, the travel pattern data including a time at which a travel occurs; a storage unit for storing the tracked travel pattern data; a processing unit that analyzes the travel pattern data to predict a particular travel path traveled by the user at a particular time when the travel occurs; and a short range communication unit that automatically determines traffic information along the particular travel path at or before the particular time at which the travel is predicted; wherein the short range communication unit is configured to communicate with a second vehicle along the travel path to receive travel information from the second vehicle, wherein the travel information from the second vehicle comprises rebroadcasted travel information that originated from a vehicle other than the second vehicle.

Breed et al. discloses a method and arrangement for communicating between vehicles but does not disclose or suggest that vehicles rebroadcast information received from other vehicles. Therefore, Breed et al. fails to disclose or suggest all of the features of claim 42.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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